



APPLICATION NO. 10/ 667,031

Filed 9/22/03

#### UNIT DESCRIPTION AS IS STATED ON APPLICATION SHEET

This unit is based around the disposal of snow, but can be used year round for multiple purposes.

1. Removal of snow from city sidewalks , streets and highways.
2. Can electrify two city blocks in case of storms or national emergencies. IE. hospitals, airports, Police stations, military bases, etc.
3. Can be used as a full fire pump using water from the hopper to put out fires.

This unit is self-sufficient and also environmentally safe, because no chemicals are discharged.

This unit is equipped with a full size compressor, two high powered steamers, and an electrical outlet for power outages. It can electrify two city blocks with a five hundred watt diesel generator. It all sits on a seventy foot truck trailer. The unit can melt 7 ½ yards of snow in 8 to 9 minutes.

The water can be disposed of by onboard through discharges pipes into city sewer.

The front panel of the hopper has a 15 inch water hole outlet. All four panels are quarter inch stainless Steel. The front panel bolts to the rear panel and to the side panels with a 9/16 inch bolts every 12 inches.

There are two high powered heat turbines on each side and connects to the hopper. It pumps anti-freeze through the 9 gauge airco surgical steel pipes. Its powered by a 500 watt diesel generator, which in the Future can be solar powered, but for now the generator will be used.

The unit has springs and shocks at the rear of the trailer with balancing rods at either end of the hopper. The hopper has 32 four inch pipes, 9 gauge airco surgical steel pipes which allows heat to build up In the tubes, it will hold heat until the pressure is released. It has eight pipes across the top and eight Rows down. It has ½ inch insulation on all four sides of the hopper.

The walls of the truck are insulated and so are each of the hopper walls. Each of the hopper walls have Three steel panels inside to add stability for holding up to 60 gallons of water.

The trailer is parked and stabilized while the snow is scooped by trucks. Which dump the snow into the Hopper. When the area is clear of snow, the trailer is moved to the next area to be cleared or until the Hopper is full.

The discharge pipes that contain the sand trap screen are attached to the underside of the unit and to the Sewer cover. The truck is maneuvered to nearest city sewer drain and clean water is expelled.

The unit can be fitted with 4 spotlights that sit on top of the trailer - either side of the hopper - to Illuminate the hopper for day/night or round the clock work.

## **SNOW DISPOSAL AND DEVELOPMENT OF JOBS:**

The following is a list of opportunities that can be created by the development of the snow disposal unit.

1. Once the machine is developed, manufacturing jobs will be available.  
This will also apply in a global sense.
2. Twenty-four hour manufacturing thru assembly line / three shift rotation will create more jobs.
3. Eventual increase in after - market sales, adding to general sales force.
4. Skilled technicians for eventual maintenance of product.
5. Manufacturing of excess components for replacement / repair. Effects both factory and commercial Sales.
6. Actual operation of unit during adverse weather conditions.
7. Training of operational crew by certified instructors.

The versatility of the snow disposal unit decreases any limitations on job specifications. It will be Able to perform all of the tasks assigned to prior vehicles of street maintenance, including sweepers, Window cleaning, and of course, snow - plows. Because of this versatility the unit has the capability Of "selling itself". Its future is endless.

The only limitation is meeting the demands for production, both nationally and eventually abroad. It is my intention to continue development over the next five years to continually improve this unit.

## **SNOW DISPOSAL AND ENVIRONMENTAL ISSUES:**

The following is a list of the environmental benefits created by using the unit.

1. Water processed from the melting snow provides complimentary cleaning of city culverts and storm Drain systems.
2. Use of sulfides(salts and other chemicals used for snow/ice melting) sands, and other manufactured Chemicals will be exempt, therefore slowing corrosion of drainage systems, less environmental Impact on eco-system, and removal of stockpiled chemicals.
3. Overall versatility of unit, self generation of power, and solid manufacturing , make for financial Efficiency with tax payers in mind.
4. Initial cost for manufacturing unit will range from 150,000-225,000 dollars. Projected return Within two years of use.
5. Estimated sales price ranging from:

Full size: \$500,000

Mid size: \$250,000

Small size: \$175,000

(differences of models dependent on capacity)

Projected primary sales for major northern cities - 12 units.

6.Examples of sales include: Mid size...shopping centers

Small size...independent business owners

Large size...cities and government facilities.

7. Natural disasters, such as Grandforks Mountain great flood of 1997, will be averted due to sporadic displacement of snow to surrounding rivers,(Mississippi in this case)

8.This unit can also assist fire fighters with larger quantities of water.

9.The unit is also capable with its diesel power plant, of powering two city blocks at a time.

#### THE HOPPER CONTENTS;

\* 32 tubes - 9 guage aerco surgical steel with pop-off capacity.

\*600 diesel generator. The watts are unknown at this time.

\*two high grade turbines at each end of the hopper to give simultaneous heat at 190 degrees and higher.

\*There is an air compressor built on the trailer for full service use.

\*The trailer will and can be used for advertisement on the sides.

## INDEX OF DRAWINGS

PAGE 1....OVER ALL VIEW OF UNIT

- A. TOP VIEW OF HOPPER
- B. 1TUBING PLACED LENGTH WAYS IN HOPPER  
2PLACES ON BOTH SIDES OF HOPPER ARE PUMPS  
FOR ANTIFREEZE TO FLOW THROUGH HOPPER  
3IS WHERE 2<sup>ND</sup> PUMP IS PLACED
- C. IS THE GENERATER
- D. IS THE CURRENT BOX
- E. IS THE FIRE HOSE STATION
- F. BACK SIDE OF TRAILER WITH PLACEMENT OF LADDER

PAGE 2....TOP VIEW OF HOPPER LOOKING DOWN TO DRAIN

PAGE 3....FRONT VIEW OF HOPPER SHOWING PIPES AND PUMPS THROUGH WHICH  
ANTI-FREEZE FLOWS

PAGE 4....FRONT OF HOPPER SHOWING FIRE HOSE HOOK UP AND ANTI-FREEZE  
IN AND OUT PIPES

PAGE 5....SIDE VIEW OF HOPPER SHOWING PIPE PLACEMENT

PAGE 6....BOTTOM VIEW OF HOPPER SHOWING DRAINAGE PIPES,SEWER COVER AND  
DEBRI SCREEN FILTER

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NOTIFICATION OF CHANGE OF ADDRESS;

FROM: SHUNTELL RAINWATER  
752 BLUE MEADOW ROAD  
APARTMENT 209C  
BAY ST.LOUIS, MS. 39520

TO: SHUNTELL RAINWATER  
25300 ST. STEPHENS ROAD  
Pass Christian, MS. 39571